

CLAIMS

What is claimed is:

1 1. A method of developing an application, the method comprising:
2 identifying pattern types corresponding to requirements for an application to be
3 developed, wherein the pattern types are identified from one or more of process patterns, user
4 interface patterns, and generic object patterns;
5 selecting patterns that best match the requirements from a set of available
6 patterns; and
7 configuring the selected patterns according to the requirements to produce an
8 application.

1 2. The method of claim 1 further comprising:
2 gathering additional application requirements based on a structure associated
3 with the selected patterns; and
4 combining the gathered additional application requirements with the selected
5 patterns.

1 3. The method of claim 1 wherein the selected patterns include process patterns
2 corresponding to different levels of a process pattern hierarchy.

1 4. The method of claim 3 wherein the process pattern hierarchy includes business
2 process patterns, work process patterns, and action patterns.

1 5. The method of claim 1 wherein the generic object patterns include collaboration
2 object patterns, business object patterns, and business role object patterns.

1 6. The method of claim 1 wherein the user interface patterns include personal
2 support patterns, execution framework patterns, and activity patterns.

1 7. The method of claim 1 wherein selecting patterns that best match the identified
2 requirements from a set of available patterns comprises:

3 determining that a work process pattern is unavailable to satisfy the
4 requirements; and

5 constructing a work process using action patterns.

1 8. The method of claim 1 wherein identifying pattern types is performed by a user
2 selecting from a set of available pattern types;

3 selecting patterns is performed by a user selecting from the set of available
4 patterns of the identified pattern type; and

5 configuring the selected patterns is performed by a user incorporating the
6 requirements into the selected patterns.

1 9. The method of claim 1 further comprising identifying and configuring content
2 patterns that correspond to the requirements.

1 10. A method of developing an application, the method comprising:
2 providing a library of patterns including at least two different types of patterns,
3 wherein the pattern types are selected from one or more of process patterns, object patterns,
4 user interface patterns, and content patterns;
5 identifying requirements for a desired software application;
6 receiving a user selection of patterns from the library of patterns; and
7 configuring the selected patterns in accordance with the identified requirements
8 to create a software application.

1 11. The method of claim 10 wherein the library of patterns includes process patterns
2 corresponding to a plurality of discrete levels of a process pattern hierarchy.

1 12. The method of claim 11 further comprising constructing a procedure from lower
2 level process patterns when a higher level process pattern that satisfies the identified
3 requirements is unavailable.

1 13. The method of claim 10 further comprising using the selected patterns to
2 identify additional requirements for the software application.

1 14. The method of claim 10 further comprising:
2 identifying work roles to be supported by the software application;
3 identifying a work style and a role content associated with each work role; and

4 selecting and configuring content patterns and user interface patterns that
5 correspond to the identified work style and role content.

1 15. The method of claim 14 wherein the library of patterns includes user interface
2 patterns corresponding to a plurality of discrete levels of a process pattern hierarchy.

1 16. The method of claim 10 further comprising:
2 identifying a process to be performed in the software application;
3 selecting at least one process pattern corresponding to the identified process;
4 identifying collaboration needs for the identified process; and
5 selecting collaboration patterns corresponding to the identified collaboration
6 needs.

1 17. The method of claim 16 further comprising:
2 identifying work roles associated with the identified process; and
3 selecting content patterns and user interface patterns that correspond to the
4 identified work roles.

1 18. A method of developing an application, the method comprising:

2 providing a set of available patterns at different discrete levels of a process
3 hierarchy, wherein the patterns include business process patterns, work process patterns, and
4 business action patterns;

5 identifying requirements for a business process;

6 mapping the identified requirements to patterns from the available patterns by
7 mapping process-related requirements to a corresponding business process pattern, wherein
8 process-related requirements for which a business pattern is unavailable are mapped to a
9 corresponding work process pattern, and process-related requirements for which a work
10 process pattern is unavailable are mapped to a corresponding business action pattern.

1 19. The method of claim 18 further comprising:

2 identifying collaboration needs and job roles that correspond to a work process
3 pattern to which the identified requirements are mapped; and

4 mapping requirements to patterns relating to collaboration functions and job role
5 functions.

1 20. The method of claim 18 wherein the business process patterns represent an
2 application scenario, the work process patterns represent guided procedure templates, and the
3 business action patterns represent guided procedure steps.

1 21. The method of claim 18 further comprising:

2 identifying a job role associated with a process pattern;
3 segmenting the job role into work roles; and
4 mapping the work roles to content patterns and user interface patterns.

1 22. The method of claim 21 wherein the content patterns and user interface patterns
2 are selected according to a work style associated with the work role and a role content for the
3 work role.

1 23. The method of claim 22 further comprising:
2 identifying work scenarios associated with the work role; and
3 mapping the work scenarios to execution framework and activity user interface
4 patterns.

1 24. The method of claim 18 wherein the set of available patterns are provided in a
2 pattern library;
3 identifying requirements is performed by one or more users; and
4 mapping the identified requirements to patterns is performed by one or more
5 users incorporating the identified requirements into the patterns based on structures associated
6 with the patterns.

1 25. An article comprising a machine-readable medium storing definitions of patterns for
2 use in constructing an application, the patterns comprising:

3 business action patterns that define guided procedure steps;
4 work process patterns that define guided procedure templates, wherein each
5 work process pattern comprises a plurality of business action patterns;
6 business process patterns that define a generic application scenario, wherein
7 each business process pattern comprises a plurality of work process patterns; and
8 wherein the patterns are accessible for use in constructing an application by
9 configuring the patterns according to identified requirements for the application.

1 26. The article of claim 25 wherein the patterns further comprise business object
2 patterns, user interface patterns, and content patterns that are accessible for use in constructing
3 the application by configuring selected business object patterns, user interface patterns, and
4 content patterns according to identified requirements for the application.

1 27. The article of claim 25 wherein the patterns further comprise collaborative
2 content patterns for defining generic collaborative structures and the collaborative content
3 patterns are accessible for use in constructing the application by configuring the collaborative
4 content patterns according to identified requirements for the application.

1 28. The article of claim 25 wherein the patterns further comprise user-centric
2 patterns comprising:

3 work style content patterns for defining generic work style contents that relate to
4 factors that drive different users' work;
5 role content patterns for defining generic roles that can be assigned to different
6 users; and
7 wherein the work style content patterns and the role content patterns are
8 accessible for use in constructing the application by configuring the patterns according to
9 identified requirements for the application.

1 29. The article of claim 25 wherein the patterns further comprise user-centric
2 patterns comprising patterns relating to work scenarios for roles that can be assigned to
3 different users, wherein the work scenario patterns are accessible for use in constructing an
4 application by configuring the patterns according to identified requirements for the application.

1 30. A method of developing an application, the method comprising:
2 identifying a job role within an enterprise;
3 segmenting the job role into work roles associated with the job role;
4 mapping each work role to at least one of a work style content pattern and a role
5 content pattern;
6 identifying work scenarios associated with each work role; and
7 mapping each work scenario to at least one work scenario user interface pattern.

1 31. The method of claim 30 further comprising configuring at least one personal
2 resource page, based on the work style content pattern, in accordance with a personal support
3 user interface pattern.

1 32. The method of claim 30 wherein the at least one work scenario user interface
2 pattern comprises at least one execution framework pattern and at least one activity pattern.

1 33. The method of claim 30 further comprising:
2 identifying a work process associated with a work scenario; and
3 mapping each work scenario to a work process pattern corresponding to the
4 identified work process.

1 34. A method of developing an application, the method comprising:
2 identifying a set of requirements for a business process application;
3 mapping the identified requirements to a work process pattern that represents a
4 guided procedure template for a work process;
5 identifying a plurality of job roles associated with the work process pattern;
6 segmenting each job role into work roles; and
7 mapping the work role to a set of patterns comprising one or both of a content
8 pattern and a user interface pattern.

1 35. The method of claim 34 further comprising:
2 identifying collaboration needs associated with the work process based on the
3 identified requirements;
4 selecting a collaborative content pattern corresponding to the identified
5 collaboration needs; and
6 mapping the collaboration needs to the selected collaborative content pattern.

1 36. A method of developing an application, the method comprising:
2 segmenting a job role in an enterprise into work roles;
3 configuring a plurality of personal support user interface patterns in accordance
4 with work styles associated with the identified work roles to produce personal support pages,
5 wherein each personal support user interface pattern corresponds to a work style;
6 identifying a plurality of work scenarios associated with the work roles;
7 mapping each work scenario to at least one user interface pattern relating to an
8 execution mode to produce an execution framework page, wherein each personal support page
9 contains links to the execution framework pages.

1 37. The method of claim 36 further comprising:
2 identifying work activities associated with each work scenario; and
3 mapping each work activity to a corresponding activity pattern to create activity
4 pages, wherein each execution framework page contains links to selected activity pages and the
5 activity pages relate to specific activities within the execution framework.